TOWER SEMICONDUCTOR LTD
Form 6-K
March 11, 2013

FORM 6-K

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

For the month of March 2013 No. 4

TOWER SEMICONDUCTOR LTD.
(Translation of registrant's name into English)

Ramat Gavriel Industrial Park
P.O. Box 619, Migdal Haemek, Israel 23105
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F x Form 40-F o

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes o No x

On March 11, 2013, the registrant announced TowerJazz Gaining Sizeable Share of Multi-Billion Dollar Front-End Module (FEM) Market; Silicon Radio Platform Replacing GaAs

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

TOWER SEMICONDUCTOR LTD.

Date: March 11, 2013

By: /s/ Nati Somekh Gilboa
Name: Nati Somekh Gilboa
Title: Corporate Secretary

TowerJazz Gaining Sizeable Share of Multi-Billion Dollar Front-End Module (FEM) Market; Silicon Radio Platform Replacing GaAs

Customer engagements with over 50 design wins; TowerJazz poised to manufacture major portion of devices serving multi-billion dollar FEM market

Handset FEM market is forecast to double to $10 Billion by 2017

MIGDAL HAEMEK, Israel and NEWPORT BEACH, Calif., March 11, 2013 – TowerJazz, the global specialty foundry leader, today announced significant customer engagements and market share gain in the fast growing Front-End Module (FEM) market, providing its Silicon Radio Platform (SRP) for smartphones and other mobile systems. TowerJazz's SRP allows integration of the radio in mobile devices including components such as antenna switches, antenna tuners, diversity switches, controllers, low-noise-amplifiers (LNAs) and power amplifiers (PAs) eliminating the need for expensive discrete GaAs devices. The SRP includes a state of the art RF SOI technology and a SiGe PA technology together with 0.18um RF CMOS for integration of control and MIPI (Mobile Industry Processor Interface) interface functions.

TowerJazz's latest RF SOI technology offers the industry's best figure of merit for antenna switch and antenna tuning applications with Ron-Coff of only 217fs. The technology is quickly replacing GaAs implementations and has already been adopted by multiple customers worldwide with over 50 separate designs taped-in with initial designs ramping to production.

TowerJazz's Silicon Germanium (SiGe) PA process is built in 0.18um technology to enable efficient integration of power amplifier, controller, and MIPI interface and also includes a through-silicon-via to deliver performance comparable to that of GaAs at only 40% of the cost while enabling new tunable features and affording levels of integration not otherwise possible.

The economic and performance driven move from GaAs technologies to Si and SiGe technologies is expected to more than triple the portion of the FEM market available to TowerJazz over the next several years, and TowerJazz is well poised to manufacture a major portion of the devices that will serve this fast growing, multi-billion dollar market. According to a 2012 report by Mobile Experts, LLC, the handset front-end market is expected to double to $10 billion and the number of RF paths is expected to grow to 20 billion by 2017. The report further indicates that multi-mode, multi-band handsets and MIMO (multiple-input and multiple-output) will drive staggering growth in the number of RF components shipped for mobile devices.

Several drivers are contributing to the growth in the FEM market including: Connectivity everywhere – 802.11a/b/g/n/ac, NFC, GPS, Bluetooth, ZigBee, HSPA+ and LTE; the expanding footprint/content in mobile platforms; and the emergence of other analog markets – smart energy, power management, emerging automotive, and others. TowerJazz is addressing these markets and further recognizing three megatrends: (1) Green Everything, (2) Wireless Everywhere, and (3) Smart Everything which are transforming the consumer electronics industry as well as our everyday lives.

“These megatrends, coupled with the slowing of Moore’s law, will create even more opportunities for specialty technologies such as those provided by TowerJazz: analog, RF, SiGe, power, MEMS, and CMOS image sensors to offer even more differentiation and create opportunities for system level optimization of performance,” said Russell Ellwanger, TowerJazz CEO. “By mastering both digital and analog technologies, TowerJazz is in a unique position to ride these trends successfully and grow more rapidly in the marketplace, as being evidenced by our FEM market leadership.”

TowerJazz offers the most complete portfolio of specialty process technologies combined with its world class design environment, providing its customers with the tools, technology, support and flexibility needed to create differentiated products for their specific mobile applications. TowerJazz provides multiple platforms for a variety of applications: RF CMOS for controllers, SOI for switch and antenna tuning, SiGe for WLAN and cellular PAs, IPD (Integrated Passive Device) for high performance passives for signal conditioning, and BCD (Bipolar-CMOS-DMOS) for use in complex power management chips. TowerJazz's MEMS capabilities provide a unique tool set and foundry model to enable strong partnerships in these technologies. TowerJazz’s design enablement offers PDKs, modeling, and tools for first time silicon success and quick time to revenue; mission critical for the fast moving cellular market.

About TowerJazz
Tower Semiconductor Ltd. (NASDAQ: TSEM, TASE: TSEM), its fully owned U.S. subsidiary Jazz Semiconductor Ltd., and its fully owned Japanese subsidiary TowerJazz Japan, Ltd., operate collectively under the brand name TowerJazz, the global specialty foundry leader. TowerJazz manufactures integrated circuits with geometries ranging from 1.0 to 0.13-micron, offering a broad range of customizable process technologies including: SiGe, BiCMOS, Mixed-Signal and RFCMOS, CMOS Image Sensor, Power Management (BCD), and Non-Volatile Memory (NVM) as well as CMOS and MEMS capabilities. TowerJazz also offers a world-class design enablement platform that complements its sophisticated technology and enables a quick and accurate design cycle. In addition, TowerJazz provides (TOPS) Technology Optimization Process Services to IDMs as well as fabless companies that need to expand capacity, or progress from an R&D line to a production line. To provide multi-fab sourcing, TowerJazz maintains two manufacturing facilities in Israel, one in the U.S., and one in Japan with additional capacity available in China through manufacturing partnerships. For more information, please visit www.towerjazz.com.

Safe Harbor Regarding Forward-Looking Statements

This press release includes forward-looking statements, which are subject to risks and uncertainties. Actual results may vary from those projected or implied by such forward-looking statements. A complete discussion of risks and uncertainties that may affect the accuracy of forward-looking statements included in this press release or which may otherwise affect TowerJazz's business is included under the heading "Risk Factors" in Tower's most recent filings on Forms 20-F, F-3, F-4 and 6-K, as were filed with the Securities and Exchange Commission (the "SEC") and the Israel Securities Authority and Jazz's most recent filings on Forms 10-K and 10-Q, as were filed with the SEC, respectively. Tower and Jazz do not intend to update, and expressly disclaim any obligation to update, the information contained in this release.

Company/Media Contact in US: Lauri Julian | +1 949 435 8181 | lauri.julian@towerjazz.com
Investor Relation